

are submitted herewith.

As to the Sequence Listing, applicants hereby state that the content of the attached paper and disk versions is the same, and that these introduce no new matter into the present application.

The present amendment to the specification introduces the 66 sequence identifier numbers at appropriate places throughout the specification, per the sequence rule requirements.

It is believed that this application is now in condition for examination on the merits, and the same is respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

Respectfully submitted,

YOUNG & THOMPSON

By



Andrew J. Patch  
Attorney for Applicants  
Registration No. 32,925  
745 South 23rd Street  
Arlington, VA 22202  
Telephone: 521-2297

October 29, 2001

Version with markings to show changes made

In the specification:

Paragraph beginning at line 27 of page 22 has been amended as follows:

CTC CGC GTT CAG GTT GGC (GHD1F) (SEQ ID NO: 12);  
AGG TGA GCT GTC CAC AGG (GHD1R) (SEQ ID NO: 13);  
CTT CCA GGG ACC AGG AGC (GHD2R) (SEQ ID NO: 14);  
CAT GTA AGC CAA GTA TTT GGC C (GHD3F) (SEQ ID NO: 15);  
GGA GAA GGC ATC CAC TCA CGG (GHD4R) (SEQ ID NO: 16);  
TCA GAG TCT ATT CCG ACA CCC (GHD5F) (SEQ ID NO: 17);  
CGT AGT TCT TGA GTA GTG CGT CAT CG (GHD6R) (SEQ ID NO: 18); and  
TTC AAG CAG ACC TAC AGC AAG TTC G (GHD7F) (SEQ ID NO: 19);

Paragraphs beginning at line 5, page 23 through line 17 have been amended as follows:

GTGCCCCAAGCCTTTCCC (LCR15: 1159-1177) (SEQ ID NO: 20);  
TGTCAGATGTTTCAGTTCATGG (LCR13: 1391-1412) (SEQ ID NO: 21);  
CCTCAAGCTGACCTCAGG (LCR25: 1346-1363) (SEQ ID NO: 22); and  
GATCTTGGCCTAGGCCTCG (LCR23: 1584-1602) (SEQ ID NO: 23); and also

LCR 5A (5' CCAAGTACCTCAGATGCAAGG 3') (SEQ ID NO: 24); and  
LCR 3.0 (5' CCTTAGATCTTGGCCTAGGCC 3') (SEQ ID NO: 25); and also

LCR 5.0 (5' CCTGTCACCTGAGGATGGG 3') (SEQ ID NO: 26);

LCR 3.1 (5' TGTGTTGCCTGGACCCTG 3') (SEQ ID NO: 27);  
LCR 3.2 (5' CAGGAGGCCTCACAAGCC 3') (SEQ ID NO: 28); and  
LCR 3.3 (5' ATGCATCAGGGCAATCGC 3') (SEQ ID NO: 29) are suitable  
for sequencing the 1.9kb fragment.

Paragraphs beginning at line 22 of page 23 through line  
27 have been amended as follows:

GH1G5 (5' GGTACCATGGCTACAGGTAAGCGCC 3') (SEQ ID NO: 30);  
GH1G3 (5' CTCGAGCTAGAAGCCACAGCTGCCC 3') (SEQ ID NO: 31);  
BGH3 (5' TAGAAGGCACAGTCGAGG 3') (SEQ ID NO: 32);

GH1R5 (5' ATGGCTACAGGCTCCCGG 3') (SEQ ID NO: 33); and  
GH1R3 (5' CTAGAAGCCACAGCTGCCC 3') (SEQ ID NO: 34).

Paragraph beginning at line 10 of page 36 has been  
amended as follows:

Oligonucleotide primers GH1F (5' GGGAGCCCCAGCAATGC 3' (SEQ ID NO: 35); -615 to -599) and GH1R (5' TGTAGGAAGTCTGGGGTGC 3' (SEQ ID NO: 36); +2598 to +2616) were designed to correspond to *GH1*-specific sequences in order to PCR amplify a 3.2kb single genomic DNA fragment containing the human *GH1* gene using the Expand™ high fidelity system (Roche).

Heading beginning at line 1 of page 39 has been

amended as follows:

**Table 6 Oligonucleotide primers used for DHPLC analysis and DNA sequencing (SEQ ID NOS: 37-50, respectively).**

Paragraph beginning at line 25 of page 40 has been amended as follows:

GH1S1 (5' GTGGTCAGTGTTGGAAGTGC 3' (SEQ ID NO: 51): -556 to -537);  
GH3DF (5' CATGTAAGCCAAGTATTTGGCC 3' (SEQ ID NO: 52): +189 to +210);  
GH4DF (5' GACTTTCCCCCGCTGTAAATAAG 3' (SEQ ID NO: 53): +541 to +560); and  
GH6DF (5' TCCCAATCCTGGAGCCCCACTGA 3' (SEQ ID NO: 54): +1099 to +1122).

Paragraph beginning at line 29 of page 41 has been amended as follows:

Fragment 1 primers were LCR15 (5' GTGCCCCAAGCCTTTCCC 3': 1159-1177) (SEQ ID NO: 55) and  
LCR13 (5' TGTCAGATGTTTCAGTTCATGG 3': 1391-1412) (SEQ ID NO: 56);  
and  
fragment 2 primers were LCR25 (5' CCTCAAGCTGACCTCAGG 3' (SEQ ID NO: 57): 1346-1363) and LCR23 (5' GATCTTGGCCTAGGCCTCG 3' (SEQ ID NO: 58): 1584-1602).

Paragraph beginning at line 22 of page 42 has been amended as follows:

LCR 5A (5' CCAAGTACCTCAGATGCAAGG 3') (SEQ ID NO: 24); and  
LCR 3.0 (5' CCTTAGATCTTGGCCTAGGCC 3') (SEQ ID NO: 25); see Figure  
4),

Paragraph beginning at line 1 of page 43 has been  
amended as follows:

LCR 5.0 (5' CCTGTCACCTGAGGATGGG 3') (SEQ ID NO: 26);  
LCR 3.1 (5' TGTGTTGCCTGGACCCTG 3') (SEQ ID NO: 27);  
LCR 3.2 (5' CAGGAGGCCTCACAAGCC 3') (SEQ ID NO: 28); and  
LCR 3.3 (5' ATGCATCAGGGCAATCGC 3') (SEQ ID NO: 29) were used to  
span the region.

Paragraph beginning at line 22 of page 45 has been  
amended as follows:

GH1G5 (5' GGTACCATGGCTACAGGTAAGCGCC 3') (SEQ ID NO: 30); and  
GH1G3 (5' CTCGAGCTAGAAGCCACAGCTGCCC 3') (SEQ ID NO: 31)

Paragraph beginning at line 8 of page 46 has been  
amended as follows:

BGH3 (5' TAGAAGGCACAGTCGAGG 3') (SEQ ID NO: 59)

Paragraph beginning at line 20 of page 46 has been  
amended as follows:

GH1R5 (5' ATGGCTACAGGCTCCCGG 3') (SEQ ID NO: 60); and  
GH1R3 (5' CTAGAAGCCACAGCTGCCC 3') (SEQ ID NO: 61)

Figure 3

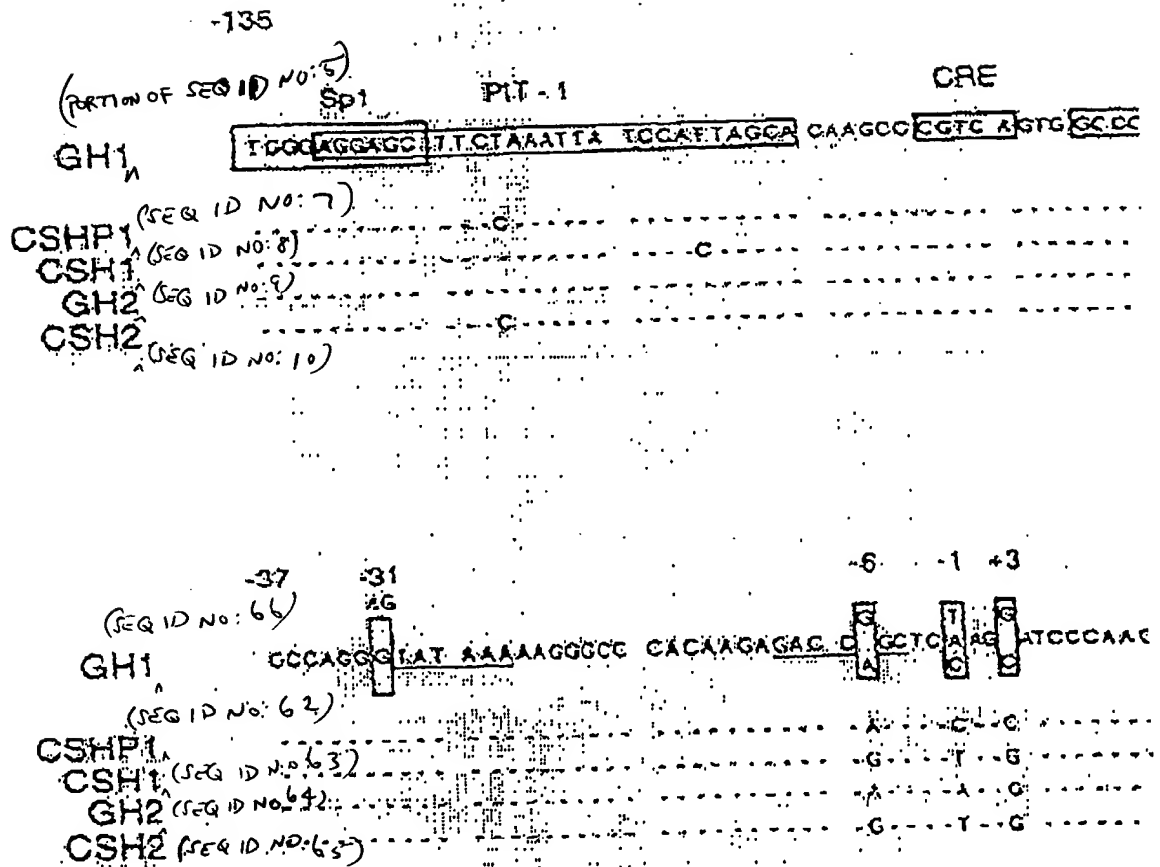


Fig. 3 Structure of the 5' untranslated region and promoter region of the human *GH1* gene. Horizontal boxes denote known, putative or inferred binding sites for transcription factors. Vertical boxes indicate polymorphic sites in the human population (data from Giordano et al. 1997; Wagner et al. 1997). The numbering scheme is by reference to the transcriptional initiation site at +1. The TATA box, a Chi-like element and the ATG translational initiation site are underlined. The human *GH1* promoter is also aligned with the promoters of the human *CSHP1*, *CSH1*, *GH2* and *CSH2* genes in order to indicate both the extent of homology but also the differences evident between promoters.